What is claimed is:

1. A method for determining whether an agent can be used to reduce the growth of a tumor, comprising the steps of:

a) obtaining a sample of tumor cells;

b) determining whether the tumor cells express one or more sensitivity markers identified in Tables 1-6; and

c) identifying that an agent can be used to reduce the growth of the tumor cells when the one or more sensitivity markers are expressed.

2. The method of claim 1, wherein the agent is a taxane compound.

3. The method of claim 1, wherein the agent is a platinum compound.

4. The method of claim 1, wherein the agent is a combination of agents consisting of a taxane compound and a platinum compound.

5. The method of claim 1, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

6. The method of claim 1, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

7. The method of claim 1, wherein said tumor cells are obtained from a tumor cell line or a tumor obtained from a subject.

8. A method for determining whether an agent cannot be used to reduce the growth of a tumor, comprising the steps of:

a) obtaining a sample of tumor cells;

b) determining whether the tumor cells express one or more markers selected from the group consisting of the sensitivity markers identified in Tables 1-6; and

c) identifying that an agent cannot be used to reduce the growth of the tumor when one or more of the sensitivity markers in Tables 1-6 is not expressed or is underexpressed by the tumor cells

9. The method of claim 8, wherein the agent is a taxane compound.

10. The method of claim 8, wherein the agent is a platinum compound.

11. The method of claim 8, wherein the agent is a combination of agents consisting of a taxane compound and a platinum compound.

12. The method of claim 8, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more sensitivity markers present in the sample.

13. The method of claim 8, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

14. The method of claim 8, wherein said tumor cells are obtained from a tumor cell line or a tumor obtained from a subject.

15. A method for determining whether an agent can be used to reduce the growth of a tumor, cancer cells, comprising the steps of:

a) obtaining a sample of tumor cells;

b) determining whether the tumor cells express one or more markers selected from the group consisting of the resistance markers in Tables 1-6; and

c) identifying that an agent can be used to reduce the growth of the tumor when one or more of the resistance markers in Tables 1-6 is not expressed or is underexpressed by the tumor cells.

16. The method of claim 15, wherein the agent is a taxane compound.

17. The method of claim 15, wherein the agent is a platinum compound.

18. The method of claim 15, wherein the agent is a combination of agents consisting of a taxane compound and a platinum compound.

19. The method of claim 15, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

20. The method of claim 15, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

21. The method of claim 15, wherein said tumor cells are obtained from a tumor cell line or a tumor obtained from a subject.

22. A method for determining whether an agent cannot be used to reduce the growth of a tumor, comprising the steps of:

a) obtaining a sample of tumor cells;

b) determining whether the tumor cells express one or more markers selected from the group consisting of the resistance markers identified in Tables 1-6; and

c) identifying that an agent cannot be used to reduce the growth of the tumor when one or more of the markers in Tables 1-6 is expressed or overexpressed by the cancer cells.

23. The method of claim 22, wherein the agent is a taxane.

24. The method of claim 22, wherein the agent is a platinum compound.

25. The method of claim 22, wherein the agent is a combination of agents consisting of a taxane compound and a platinum compound.

26. The method of claim 22, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

27. The method of claim 22, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

28. The method of claim 22, wherein the tumor cells are obtained from a tumor cell line or a tumor obtained from a subject.

29. A method for determining whether an agent can be used to reduce the growth of a tumor, comprising the steps of:

a) obtaining a sample of tumor cells;

b) exposing the tumor cells to one or more agents;

c) determining the level of expression in the tumor cells of one or more markers selected from the group consisting of the sensitivity markers identified in Tables 1-6 in the sample exposed to the agent and in a sample of tumor cells that is not exposed to the agent; and

d) identifying that an agent can be used to reduce the growth of said tumor when the expression of one or more of said markers is increased in the presence of said agent.

30. The method of claim 29, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

31. The method of claim 29, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

32. The method of claim 29, wherein the tumor cells are obtained from a tumor cell line or a tumor obtained from a subject.

33. A method for determining whether an agent cannot be used to reduce the growth of tumor cells, comprising the steps of:

a) obtaining a sample of tumor cells;

b) exposing the tumor cells to one or more agents;

c) determining the level of expression in the tumor cells of one or more markers selected from the group consisting of the sensitivity markers identified in Tables 1-6 in the sample exposed to the agent and in a sample of tumor cells that is not exposed to the agent; and

d) identifying that an agent cannot be used to reduce the growth of the tumor when the expression of one or more of said markers is not increased in the presence of said agent.

34. The method of claim 33, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

35. The method of claim 33, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

36. The method of claim 33, wherein the tumor cells are obtained from a tumor cell line or a tumor obtained from a subject.

37. A method for determining whether an agent can be used to reduce the growth of a tumor, comprising the steps of:

a) obtaining a sample of tumor cells;

b) exposing the tumor cells to one or more agents;

c) determining the level of expression in the tumor cells of one or more markers selected from the group consisting of the resistance markers identified in Tables 1-6 in the sample exposed to the agent and in a sample of tumor cells that is not exposed to the agent; and

d) identifying that an agent can be used to reduce the growth of the tumor when the expression of one or more of said markers is not increased in the presence of said agent.

38. The method of claim 37, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

39. The method of claim 37, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

40. The method of claim 37, wherein the tumor cells are obtained from a tumor cell line or a tumor obtained from a subject.

41. A method for determining whether an agent cannot be used to reduce the growth of a tumor, comprising the steps of:

a) obtaining a sample of tumor cells;

b) exposing the tumor cells to one or more test agents;

c) determining the level of expression in the tumor cells of one or more markers selected from the group consisting of the resistance markers identified in Tables 1-6 in the sample exposed to the agent and in a sample of tumor cells that is not exposed to the agent; and

d) identifying that an agent cannot be used to reduce the growth of the tumor when the expression of one or more of said markers is increased in the presence of said agent.

42. The method of claim 41, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

43. The method of claim 41, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

44. The method of claim 41, wherein the tumor cells are obtained from a tumor cell lines or a tumor obtained from a subject.

45. A method for determining whether treatment with an anti-cancer agent should be continued in a cancer patient, comprising the steps of:

a) obtaining two or more samples comprising cancer cells from a patient during the course of anti-cancer agent treatment;

b) determining the level of expression in the cancer cells of one or more markers selected from the group consisting of the sensitivity markers identified in Tables 1-6 in the two or more samples; and

c) continuing treatment when the expression level of one or more of the markers does not decrease during the course of treatment.

46. The method of claim 45, wherein the agent is a taxane.

47. The method of claim 45, wherein the agent is a platinum compound.

48. The method of claim 45, wherein the agent is a combination of agents consisting of a taxane compound and a platinum compound.

49. The method of claim 45, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

50. The method of claim 45, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

51. A method for determining whether treatment with an anti-cancer agent should be discontinued in a cancer patient, comprising the steps of:

a) obtaining two or more samples comprising cancer cells from a patient during the course of anti-cancer agent treatment;

b) determining the level of expression in the cancer cells of one or more markers selected from the group consisting of the sensitivity markers identified in Tables 1-6 in the two or more samples; and

c) discontinuing treatment when the expression level of one or more of the markers decreases during the course of treatment.

52. The method of claim 51, wherein the agent is a taxane agent.

53. The method of claim 51, wherein the agent is a platinum compound.

54. The method of claim 51, wherein the agent is a combination of agents consisting of a taxane compound and a platinum compound.

55. The method of claim 51, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

56. The method of claim 51, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

57. A method for determining whether treatment with an anti-cancer agent should be discontinued in a cancer patient, comprising the steps of:

a) obtaining two or more samples comprising cancer cells from a patient during the course of anti-cancer agent treatment;

b) determining the level of expression in the cancer cells of one or more markers selected from the group consisting of the resistance markers identified in Tables 1-6 in the two or more samples; and

c) discontinuing treatment when the expression level of one or more of the markers does not decrease during the course of treatment.

58. The method of claim 57, wherein the agent is a taxane.

59. The method of claim 57, wherein the agent is a platinum compound.

60. The method of claim 57, wherein the agent is a combination of agents consisting of a taxane compound and a platinum compound.

61. The method of claim 57, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

62. The method of claim 57, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

63. A method for determining whether treatment with an anti-cancer agent should be continued in a cancer patient, comprising the steps of:

a) obtaining two or more samples comprising cancer cells from a patient during the course of anti-cancer agent treatment;

b) determining the level of expression in the cancer cells of one or more markers selected from the group consisting of the resistance markers identified in Tables 1-6 in the two or more samples; and

c) continuing treatment when the expression level of one or more of the markers does not increase during the course of treatment.

64. The method of claim 63, wherein the agent is a taxane.

65. The method of claim 63, wherein the agent is a platinum compound.

66. The method of claim 63, wherein the agent is a combination of agents consisting of a taxane compound and a platinum compound.

67. The method of claim 63, wherein the level of expression is determined by detecting the amount of mRNA that is encoded by the one or more markers present in the sample.

68. The method of claim 63, wherein the level of expression is determined by detecting the amount of protein that is encoded by said one or more markers present in the sample.

69. A method for reducing the growth rate of cancer in a patient, comprising the step of administering to a patient with cancer an agent identified using the method of any of claims 1, 8, 15, 22, 29, 33, 37 and 41, as being able to reduce the rate of growth of the cancer.